

## **J. Bryan Curtis**

Lawrence Berkeley National Lab  
Earth Sciences Division  
Climate Sciences Department

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### **EDUCATION**

#### **2006-2010 Humboldt State University**

B.S. Biology – Ecology emphasis

Geography minor

Geographic Information Technology minor

GPA: 3.70

Relevant course work:

Introduction to Ecology, Principles of Ecology, Population/Community Ecology, Microbial Ecology, Principles of Biology, Principles of Zoology, Genetics, Evolution, Calculus for the Biological Sciences and Natural Resources, Introductory Biometrics, Intermediate Statistics, Physical Geography, Introduction to GIS Concepts, Biogeography, Global Climate Change, Introduction to Remote Sensing, Plant Taxonomy, Entomology, Plant Physiology, Brief Organic Chemistry. Applied Statistics with R, Intermediate GIS, Cartography, and GPS Techniques.

Plant Taxonomy/Dendrology

- Strong plant identification skills

Microbial Ecology

- Research Proposal (NSF guidelines): “Biogeochemical Cycling of Methane in Wetland Ecosystems” (Paper and Presentation)
- Significant exposure to molecular techniques and analyses

Biometrics/Intermediate Statistics/Applied Statistics

- Extensive use of Minitab, NCSS, and R
- Experience with linear regression and multivariate statistics

Cartography and Intermediate GIS

- Proficiency with ArcGIS
- Research Project: “California Cattle and Wetland Methane Emissions” (Poster Presentation and Map)

## AWARDS

- 2013      **SPOT Award-** Lawrence Berkeley Lab Recognition Award Program. Nominated by Margaret S. Torn (Senior Scientist, LBL) for contribution to the summer 2013 field campaign in Barrow, AK for NGEE-Arctic
- 2009      **NSF Research Experience for Undergraduates (REU)-** Rocky Mountain Biological Laboratory.
- 2009      **Presidential Scholar-** Humboldt State University: Distinction awarded each semester to students achieving a GPA above 3.85 (spring and fall semester).
- 2008      **Presidential Scholar-** Humboldt State University: Distinction awarded each semester to students achieving a GPA above 3.85 (spring and fall semester).

## RESEARCH EXPERIENCE

- 2012-Present    **Research Associate at Lawrence Berkeley National Laboratory**  
(6/28/2012-Present)
- Supervisor: Margaret S. Torn (Senior Scientist, LBL)
- General field and lab support for Next-Generation Ecosystem Experiments (NGEE)-Arctic
  - Development of ground point NDVI sampling and analysis for NGEE-Arctic
  - Lead collaborator on multi-disciplinary 3 Km sampling transect across differently aged Arctic drained thaw lake basins for NGEE-Arctic (2013 AGU abstract first author and publications planned)
  - Organize and plan weekly lab meetings for LBL's "Independent Observations for Model Development" NGEE-Arctic group
  - Acting instrument mentor for AMC soil moisture system for Atmospheric Radiation Measurement (ARM) North Slope of Alaska (NSA)
  - Lead researcher for ARM NSA vegetation dynamics and soil respiration
  - General field and lab support for LBL's Terrestrial Ecosystem Science Scientific Focus Area (TES SFA; AKA "Depth Experiment")
  - Lead on automated soil respiration system for TES SFA "Depth Experiment"
  - Development of geospatial program for LBL's Earth Sciences Division (Collaboration with Michelle Robertson, LBL Project Scientist, and Craig Ulrich, LBL Engineering Associate)

- 2010-2012     **Research Technician-** Junior Specialist for the Strauss Lab in the Evolution and Ecology Department at the **University of California, Davis**.  
(8/26/2010 – 6/22/2012)  
Supervisor: Sharon Y. Strauss (Professor, UCD)  
-General lab management  
-Field, lab, and greenhouse data collection/entry/organization
- 2010           **Research Assistant-** Global Observation Research Initiative in Alpine Environments (GLORIA) at **Rocky Mountain Biological Laboratory**.  
(7/14/2010 – 8/15/2010)  
Supervisor: Lara Kueppers (Assistant Professor, UC Merced)
- 2010           **Research Assistant-** Alpine Treeline Warming Experiment on Niwot Ridge, Colorado at **CU Boulder Mountain Research Station**. (6/1/2010 – 7/1/2010)  
Supervisor: Cristina Castanha (Research Associate, Lawrence Berkeley Lab)
- 2010           **Senior Thesis-** Observing, analyzing, and predicting successional change at the landscape level using remote sensing and geographic information technologies (collaboration with ecology graduate student).  
Advisor: Erik Jules (Professor, Humboldt State University)
- 2009           **Assistant to Graduate Student-** Effects of genotypic diversity within a *Salix* sp. on community composition.  
Advisor: Erik Jules (Professor, Humboldt State University)
- 2009           **Rocky Mountain Biological Laboratory REU research project-**  
“Environmental Forces Drive Morphological Variation in an Alpine Plant”  
Mentor: John Harte (Professor, UC Berkeley)

## PRESENTATIONS

- 2013           Curtis, J. B.; M.S. Torn; V.L. Sloan; J. Liebig; M.S. Hahn; N. Raz-Yaseef; G.L. Altmann; S.D. Wullschleger; R.J. Norby; C.J. Wilson; J. Siegrist; O. Chafe, 2013. Climate forcing across multiple scales and landscape types within the Arctic Tundra ecosystem. B11G-0447. Accepted to 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2012           Hahn, M. S.; J. B. Curtis; V.L. Sloan; M.S. Torn, 2012. Association between permafrost degradation and soil greenhouse gas fluxes in the Alaskan Arctic. B21D-0410. Presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.

## ADDITIONAL EXPERIENCE

- 2009      **Gas Chromatography-Mass Spectrometry training-** Humboldt State University
- 2007      **Certified Coastal Naturalist-** Certificate program conducted by Friends of the Dunes (501(c)3 non-profit organization): trained as a coastal dune naturalist.

## RESEARCH INTERESTS

- Ecosystem ecology
- Biogeochemical cycles: Carbon and methane cycling
- Spatial scaling of ecosystem processes, from soil pores to global scales, and the impact of scaled ecosystem processes on regional and global climate
  - Combining field observations, environmental monitoring, remote sensing, and modeling to address scaling objectives
- Land-atmosphere interactions
- Microbial ecology: Microbial influences on landscape level ecosystem processes

## TECHNICAL INTERESTS

- Geographical Information Systems (GIS)
- Remote Sensing: plot to satellite scale
- Eddy covariance and environmental monitoring systems
- Engineering novel field sampling/monitoring techniques